

Title : Accurate junction capacitance model of the MOSFET for high-speed circuit simulator
Patent Number: 10063626
Author: Andy Huang...etc.

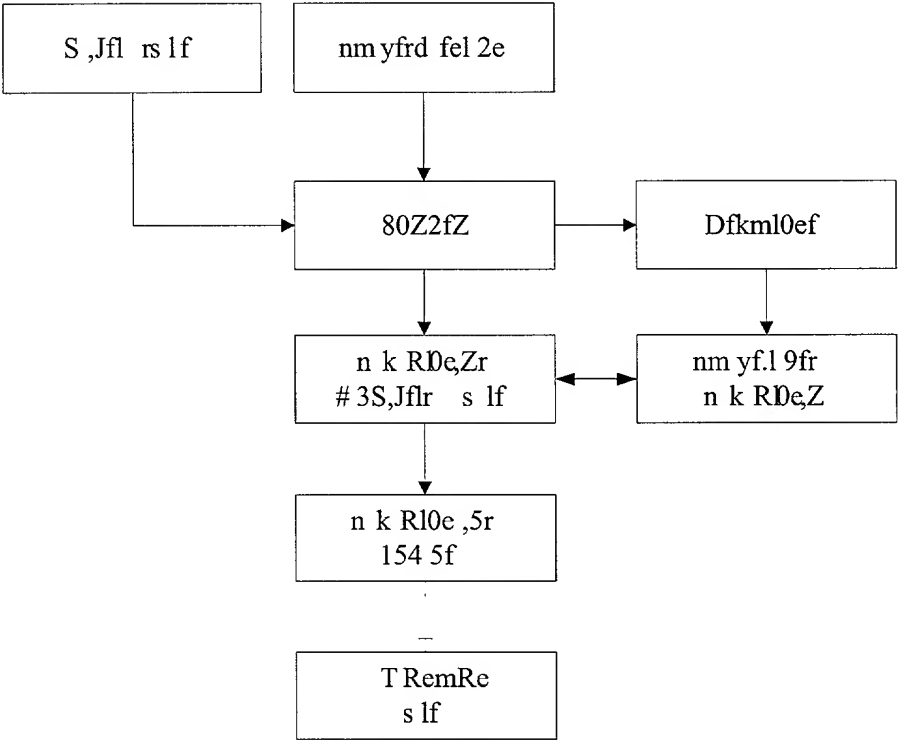


Figure 1

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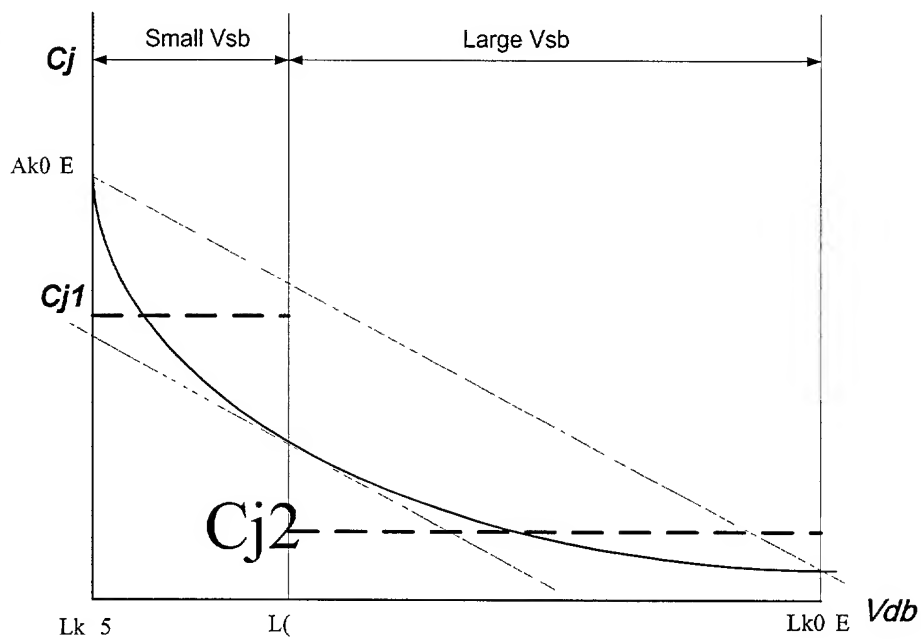


Figure 2

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$$C_{j1} = \frac{\int_{V_1}^{V_x} C_{jd} dV}{V_1 - V_{\min}} \cong \frac{\sum_{v_i \leq v_1} C_{ji}}{V_1 - V_{\min}}$$

The corresponding value at the large region is $C_{j2} = \frac{\int_{v_1}^{v_{\max}} C_{jd} dv}{V_{\max} - V_1} \cong \frac{\sum_{V_i \leq V_{\max}} C_{ji}}{V_{\max} - V_1}$, which are modeled as Cj1, Cj2.

Figure 3